

Occupational Health & Safety

JANUARY 2007 30TH ANNIVERSARY ISSUE



ALBERTA'S TRAFFIC SAFETY PLAN

WWW.WORKSAFELY.ORG



EMPLOYERS CAN HELP STOP THE CARNAGE ON ALBERTA ROADS

by Don Szarko

The most dangerous thing we do every day is drive, whether for pleasure or business. Driving is a high-risk activity, yet we rarely treat it with the respect and attention it deserves—despite the almost daily newspaper headlines about traffic fatalities.

Can we really make a difference and stop the carnage on Alberta roads? The simple answer is Yes.

More and more people are on the road today—driving for work, commuting to and from work, and driving during their leisure time. Alberta is experiencing a significant increase in vehicles and a corresponding increase in work-related crashes, deaths and injuries. Sadly, vehicle crashes are the number one safety issue many organizations are attempting to deal with, and often with less than desirable results.

Vehicle collisions can negatively impact the bottom line of an organization, as resources are lost to incident investigation, insurance claims, lost time, equipment downtime and reduced staff morale. In Alberta's rapidly growing economy, which is challenged with a shortage of skilled labour, employers must do all they can to protect their employees and recognize that safe driving initiatives are an important investment.

Employers also have a responsibility to ensure the safety of their employees, both on and off the job. Although many employers have implemented driving policies and procedures and are supporting them with rewards and disincentives, many others still do not have formal programs.

Policies stating that employees must wear seatbelts, and are not to speed or talk on cell phones while driving, or must not drive while drowsy, are important. But these policies only partially contribute to what should be a systemic approach to driving safety. Our collective challenge as employers, regulators, enforcers, engineers

and community stakeholders is to bring about a change in attitudes and behaviours by encouraging individuals to accept personal responsibility the second they climb into their private or company vehicle.

Perhaps it's ironic, but the most appropriate and influential environment for delivering this message is the workplace. How does an employer ensure policies are being adhered to, and how does a company develop a safe driving

Our collective challenge ... is to bring about a change in attitudes and behaviours.

culture that extends beyond work? Organizations often seek expert advice to assess possible solutions, projected costs and desired results. While the answers to these questions may be complex, one can easily start by taking a look at existing workplace policies and standards, employee work hours, vehicle safety and inspections, proper skills, training and programs that evoke behavioural changes. It all begins with an inward-looking view versus the common response of blaming the other driver.

We have a choice. We can either continue to accept the sobering fact that each and every day in Alberta some 67 people will be injured or killed on our roads, or we can take action. Crashes are not "accidents." Preventing all motor vehicle crashes can be the norm if we all embrace an "It starts with me" attitude.

Let's make safe driving our number one priority.

Don Szarko is the manager of Advocacy and Community Services, Alberta Motor Association.

OCCUPATIONAL HEALTH & SAFETY

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Wally Baer
Anita Jenkins

Managing Editor
Editor

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The magazine is also available as a PDF file at www.whs.gov.ab.ca/whs-ohsmag.

Contacting the editor. We welcome response to articles or information published in this magazine, as well as suggestions for future articles. You can reach the editor through the Workplace Health & Safety Contact Centre, phone 1-866-415-8690, whs@gov.ab.ca.

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ACSA OFFICE OPENS IN FORT MCMURRAY



Official opening of ACSA's Fort McMurray Office

On September 27, 2006, the Alberta Construction Safety Association officially opened an office in Fort McMurray (at #164A Thickwood Heights Shopping Centre, 101 Signal Road). This much-needed new space, which includes two training classrooms and a six-station e-learning lab, provides a permanent home for ACSA in the Wood Buffalo region. For several years the ACSA offered an average of three courses a week in Fort McMurray, and recently that number has easily doubled. ACSA Advisor Steve Proulx is the office manager.

Featured in the photo, left to right: Robin Kotyk, ACSA Manager – North Region; Gary Wagar, ACSA Executive Director; Melissa Blake, Mayor, Fort McMurray; Peter Dunfield, representing Oil Sands Safety Association; and Steve Proulx, ACSA Manager, Wood Buffalo Region.

For more information, contact Steve Proulx at (780) 715-2157, fortmcmurray@acsa-safety.org.

IN THIS ISSUE

Editor Anita Jenkins and I didn't deliberately set out to produce a theme issue, but it seems our booming economy pervades everything we talk about in the safety world today. Industries are operating 24/7, with resulting heavy workloads for their employees. Hundreds, if not thousands, of new workers are pouring into our province every month. Traffic is constantly getting heavier and drivers more stressed. Consequently, you will read in these pages about managing workers' fatigue, safety in multicultural workplaces and the Alberta Traffic Safety Plan. Enjoy!

— Wally Baer, Managing Editor



NAOSH WEEK
MAY 6 – 12, 2007

A Commitment for Life—Start Today!

NAOSH Week 2007 has chosen the theme Start Today! for this year's events. The contact persons for local NAOSH committees are:

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SUBMIT YOUR APPLICATION!

2007 Annual Awards for Innovation in
Workplace Health and Safety
Deadline: February 15, 2007

How can you get the job done effectively and efficiently, and at the same time safely? The Annual Awards for Innovation in Workplace Health and Safety recognize individuals and organizations that have found ways to address this ongoing workplace challenge.

Previous winners who have developed new and safer ways to tackle problems have shown they have what it takes: a thorough understanding of the issue, willingness to work hard and a pinch of ingenuity. All the award winners have demonstrated that innovative thinking and commitment can help control or even eliminate many previously accepted hazards.

Awards are offered in all eight industry categories:

- agriculture and forestry
- mining and petroleum development
- manufacturing and processing
- construction and construction trade services
- transportation, communication and utilities
- retail and wholesale trade services
- public administration, education and health services
- business, personal and professional services

For guidelines and application forms, visit www.whs.gov.ab.ca/whs-innovation.

OH&S MAGAZINE REACHES 30-YEAR MARK

The January 2007 issue of *Occupational Health & Safety* is designated as Volume 30, Number 1, which indicates the magazine has now been published for three decades!

An eight-page publication dated March 1, 1976, described "Alberta's new occupational health and safety program," launched under the leadership of then-Minister of Labour Neil Crawford. By 1977, the Occupational Health and Safety Act had been passed, and the Alberta government had begun publishing the OH&S magazine on a regular basis. The magazine has been available to Albertans ever since.

Early issues were typed, photocopied (on one side) and held together by a staple in the top left-hand corner. However, the magazine's title had a "jazzy" design, and variations of this original concept remained in use for many years.

In those days before word processing, only commercial printers and graphic designers had the ability to use bold

OCCUPATIONAL HEALTH AND SAFETY CODE CHANGES

The 2006 edition of the Occupational Health and Safety Code is now available at www.hre.gov.ab.ca/cps/rde/xchg/hre/hs.xsl/307.html.

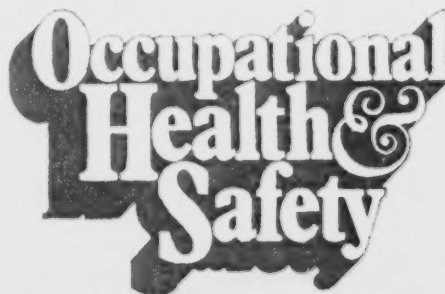
The requirements of the 2006 edition come into effect on February 1, 2007. Until then, an employer can begin using the new requirements as long as the minimum requirements of the existing 2003 edition are met.

Key changes to the Code include:

- expanding the present locking-out requirement to deal with situations such as plant turnarounds
- clarifying the rules that apply to hazardous locations
- including rules for industrial and non-industrial rope access work
- including new rules for high voltage system utility workers
- simplifying the requirements for commercial diving operations

A comparison summary of changes and additions to the OHS Code (Safety Bulletin L1026) and an updated Explanation Guide are also available on the Workplace Health and Safety website. Official printed versions of the 2006 OHS Code and updated Code Explanation Guide are available for purchase from the Alberta Queen's Printer.

Please submit further suggested changes to the Code by **March 31, 2007** to Workplace Health and Safety Policy and Legislation at (780) 415-0648, kenn.hample@gov.ab.ca.



Original OH&S title, March 1976

or italic type, or fonts of different sizes and styles, so the magazine's editors had to use underlining extensively. Copy would undoubtedly have been typed many times over before the final version could be photocopied, as there was no other way to edit and revise.

ALL ALBERTANS OWN TRAFFIC SAFETY

THE TRAFFIC SAFETY PLAN

by Margaret Anne J. Taylor

In Alberta, most people don't think of driving as a risky activity, unless they've been involved firsthand in a collision or been touched by its consequences. And then sometimes it's too late—at the cost of a life or serious injury.

In 2005 there were 466 deaths and 24,504 injuries on Alberta's roads. Everyone needs to participate and take responsibility for driving in order for safety to improve on roads throughout the province, say the people behind Alberta's first coordinated effort on road safety, the Traffic Safety Plan.

The risks of driving

Jeanette Espie, executive director, Office of Traffic Safety, Alberta Infrastructure and Transportation, says, "Albertans need to take the issue of road safety very seriously. They need to drive defensively, take responsibility for their own behaviour and take measures to be safe on the road such as wearing seatbelts, driving sober, obeying the rules of the road and not driving while tired."

Mark Rice, an effective practices specialist at Alberta Employment, Immigration and Industry, is also working on the Traffic Safety Plan. Rice says, "People need to want to drive safe and follow through by taking safe actions." According to Rice, provincial workplace statistics for 2005 show that 1,728 Alberta workers received injuries serious enough to have missed one or more days of work, and 39 workers died as a result of work-related motor vehicle incidents.

Don Szarko, manager of advocacy and community services at the Alberta Motor Association, sums it all up by saying, "We all own traffic safety." He adds, "We need to change the culture of driving; we consistently sacrifice safety for convenience." Szarko says Alberta's booming

resource based economy compels drivers to stay connected to their offices through cell phones and computers, even while driving. The healthy economy also attracts younger people to the province, says Espie, and they have a higher collision rate than other drivers.

In 2005 there were 466 deaths and 24,504 injuries on Alberta's roads.

In addition to distractions such as cell phones, Szarko says another road safety challenge is that people tend to take more risks when they are alone in a vehicle. "They might have one extra drink or neglect to put on a seatbelt. A sense of responsibility kicks in when someone else is in the vehicle." Changing people's driving attitudes and behaviours is at the heart of Alberta's Traffic Safety Plan, which was released on November 3, 2006. The ultimate goal is to reduce fatalities and injuries on roadways. More than 100 stakeholders worked together to put together the document.

As Szarko points out, more good drivers than bad are out there on the province's roadways. But he often thinks about how to make people understand that speeding down Whyte Avenue in Edmonton or Deerfoot Trail in Calgary is dangerous. "It's unfortunate, but the message only seems to resonate once people have been in a crash." He says collisions are caused by otherwise well-intentioned people who don't understand the level of risk in running a red light or failing to respond to a stop sign.

A more coordinated approach

The Traffic Safety Plan is designed to speak to all Albertans, in many different ways. While many of the



traffic safety initiatives are already underway, Espie says the plan emphasizes the important issues. "We are hoping to do more and to do better in the area of road safety."

"It's the best available intelligence on the table from more than 100 stakeholders."

The Traffic Safety Plan highlights many issues, including occupant safety, impaired driving, speeding, rural road safety, interaction with commercial vehicles, vulnerable road users (pedestrians, ATV enthusiasts and motorcyclists) and high risk drivers (young people or those with repeated infractions or collisions). Espie notes that the distractions go far beyond cell phones and Blackberries. The idea is to pull a driver's full attention to the task of driving, rather than eating, drinking hot coffee, getting too involved in conversations, dealing with family pets or adjusting electronics. She says people need to allow enough time to get where they are going, and recognize that driving cooperatively means letting people in to merge or thanking other drivers who let them in.

While every stakeholder in the Traffic Safety Plan emphasizes different hazards, many seem to agree on

the power of the plan to get everyone working together. "What excited us, and what we're passionate about," says Murray Sunstrum, vice president of safety at Enform, "is a traffic safety initiative being coordinated under one strategy." Szarko agrees. "We need a vision and framework for all stakeholders to use as a guide. We need to improve coordination, leverage resources and eliminate all ad hoc programs."

Enform recently launched a safety awareness campaign for the upstream oil and gas industry that Sunstrum believes would be more effective as a coordinated part of the Traffic Safety Plan. Enform is used to collaboration, as it is in an association with six other groups that came together to eliminate duplication in training efforts. The Enform campaign kicked off on October 17 with a procession down Stephen Avenue Mall in Calgary. Its motto, "Choose to drive safe," reflects the heart of the Traffic Safety Plan. "We can all choose what we do while we are driving," says Sunstrum "and our choices have an immediate impact on safety."

The upstream petroleum industry puts thousands of drivers on Alberta's roads every day. Sunstrum says, "We are seeing driving patterns in our industry that

surprise us. It's the decisions people make: driving without seatbelts, impaired driving, speeding and distractions. Most people do not know that driving is the leading cause of death in upstream oil and gas. We have lost 163 employees since 1994 to on the job driving fatalities."

The Traffic Safety Plan would enhance road safety in upstream oil and gas and beyond, says Sunstrum, by establishing a single point of contact, the Office of Traffic Safety. For example, the Office would be a single repository of traffic statistics. Today statistics gathered by law enforcement agencies to determine whether to press charges cannot necessarily be used by other groups to prevent collisions. "If organized properly, the Office of Traffic Safety could have a big impact," says Sunstrum.

The Traffic Safety Plan also has widespread implications for the trucking industry. Mayne Root, executive director, Alberta Motor Transport Association, says the most significant hazards in his industry are related to following traffic rules and regulations, driver fatigue, substance abuse, and driver qualifications and training. Per mile travelled, though, Root says, truck drivers are the safest drivers on the road and are committed to continuous improvement in safely sharing the highways with the public.

The Traffic Safety Plan helps address issues in the trucking industry through monitoring activities and enforcement. Root says, "Each stakeholder is doing things on an ongoing basis to help meet the initiatives of the Traffic Safety Plan. From the public and commercial perspective, we hope the plan improves driver attitudes and performance, and lowers the number of injuries and fatalities."

Representing members that haul materials for hire, the AMTA is part of a group launching a pilot program in spring 2007 at Red Deer College. This college-standard program will certify students as Commercial Vehicle Drivers.

Details of the plan

Back at Alberta Infrastructure and Transportation, Espie says all of the identified road safety challenges in the Traffic Safety Plan have systematic strategies outlined for them, including education, research and evaluation, enforcement and engineering.

The plan's philosophy on education is lifelong learning about traffic safety, from birth to old age. A huge communications network supports education, including advertising, school initiatives, websites and networking with registry offices. In terms of enforcement, Espie says, "We need to enforce all of the rules of the road, including seatbelts, impaired driving and speeding." All of these strategies are nothing new, she adds. "It's just doing more of the things that work well."

In terms of research and evaluation, Espie says, "We need access to the best research in all of the areas, nationally, internationally and within Alberta. We can implement programs that have had success elsewhere, and evaluate them to see if they are working here." Sunstrum emphasizes that research needs to be directed at specific problems in

Alberta, such as evaluating whether traffic circles work effectively as a safety device in calming traffic in this province.

Engineering changes include items such as dividing highways, and adding lights, gentler side slopes and rumble strips. Szarko says, "You can design and build roadways to make people slow down." He says the grinding noise of the rumble strip wakes up drivers and jolts them back to consciousness as they approach intersections or drift out of lanes. According to Szarko, manufacturers are also doing a good job of engineering life space within vehicles—two of the greatest innovations being padded dashes and collapsible steering wheels.

For Szarko, the encouraging part of the Traffic Safety Plan is that the government is now taking the lead. "It is the first time we have identified all of the requirements of road safety in one document. We strongly support the plan. It's the best available intelligence on the table from more than 100 stakeholders."

For more information

Details of the Traffic Safety Plan are available at www.saferoads.com.

Plans are underway to provide employers with useful resources through the associated Road Safety at Work strategy, which will be available at www.worksafely.org.

Margaret Anne J. Taylor is a writer and media consultant with Preston Stuart Communications in Calgary.

RESOURCES

WEB LINKS

www.enform.ca

Enform, the training, certification and health and safety services arm of the upstream petroleum industry

www.amta.ca

Alberta Motor Transport Association

www.ama.ab.ca

Alberta Motor Association

BEING SAFE IN A MULTICULTURAL WORKPLACE

by Cheryl Mahaffy

Walk into any safety meeting in today's Alberta, and you're likely to find workers from cultures far beyond our borders. Workers for whom survival has meant keeping the mouth shut when superiors mess up. Workers whose culture tells them to avoid eye contact. Workers who would be atop the heap in their country of origin, not as they are here, at the bottom.

Indeed, diversity is fast becoming a significant safety concern, says Jim Zalcik, who coordinates English in the workplace programs for NorQuest College in Edmonton. "Five to 10 years ago, only a few companies had diversity issues to a level they felt they had to address. Now communication challenges between foreign workers from different countries, as well as between foreign and Canadian-born workers, are becoming widespread." Soon, he predicts, a health and safety unit without an intercultural specialist will find itself at sea.

Employers ignore cultural diversity at their peril, agrees Ralph Paufler, associate director of the Edmonton Mennonite Centre for Newcomers. "We know from research that young people and other new workers are most likely to get injured. Immigrants are always new workers, and they face the additional challenges of language and cultural barriers. With the labour market so strong, people are often entering the workforce before they should, so the risk is even higher right now."

A two-pronged approach

Addressing cultural diversity takes a two-pronged approach that equips both immigrants and their Canadian-born co-workers, says Zalcik. "Many employers have never thought of looking at that second side of the equation, but in fact Canadian-born workers can be taught certain communication skills faster. And they have a huge part to play in health and safety in the culturally diverse workplace."

It's all about putting yourself in others' shoes, says Norquest intercultural trainer Sarah Apedaile. Immigrants who see their supervisor kibitzing about the latest hockey scores with Canadian-born co-workers may feel excluded and pay little heed to boss-talk about safety. "You might not see conflict on the shop floor, but it can be very close beneath the surface, little things bubbling and boiling."

The supervisor who carries a tray over to the newcomers' side of the cafeteria, by contrast, signals a welcome that sets the scene for a safer site. "Once you have a relationship of trust, problems can be resolved because you have that foundation," Apedaile says. "And you can start to anticipate, because you have your antennae up for the kinds of things that might be misunderstood and misinterpreted. You're moving away from tolerance toward an attitude of curiosity and interest in the other."

It's not simply a matter of filling empty jobs or meeting immigrant needs, but building workplaces that are welcoming and safe.

Zalcik recalls two newcomers whose productivity skyrocketed once their supervisor took time to find out what was happening in their lives. Without that, they might well have been fired, wasting sums spent in recruitment and training while entrenching stereotypes on both sides, he notes. "The ramifications are really quite deep over time. It's not simply a matter of filling empty jobs or meeting immigrant needs, but building workplaces that are welcoming and safe. Those are the bigger issues that drive our work."

Intercultural training for employers and supervisors

Recognizing the importance of this work, the Manufacturers' Health & Safety Association has contracted NorQuest



College to provide intercultural training as part of every supervisory course and to design a course specifically focused on intercultural awareness. Like several other Alberta educators and not-for-profits, NorQuest College also works directly with employers, offering everything from lunch-hour seminars to multi-day courses. Typically, those sessions deal with situations specific to the company in question.

Such training succeeds when it helps co-workers see newcomers as people with histories and dreams, says Kam Purewal, manager of business, employment and training services with the Calgary Catholic Immigration Society. "We tell stories of what newcomers have gone through, the hardship they have experienced. But at the same time, we concentrate on the fact that they are here and willing to work, to learn, to accept this culture. Given a chance, they'll most likely be very good workers."

Safety training that is culturally aware, says Paufler, uses a show-tell-do approach: demonstrate, describe in plain English, then ask workers to give it a try. It's particularly crucial to provide step-by-step procedures for reporting unsafe conditions, he adds.

"Many foreign workers come from a context where if they mention anything safety-related to the government or a supervisor, they lose their job," says Zalcik. "They bring all these views and standards to Canada and continue to operate that way unless we explicitly tell them otherwise."

All too often, Zalcik adds, our speech is peppered with idioms that make no sense to a newcomer. On one worksite, an immigrant worker mistook "can't" for "can" and began traversing a beam high above the ground while his supervisor shouted from below. How much better to use distinctly different words, such as "yes" or "no," "stop" or "go."

Training immigrant workers

The second part of the intercultural awareness equation, training immigrant workers, deserves equal attention. That's what brings Cindy Bond of Bow Valley College to Haworth, an international furniture maker. Hired to design a 16-week English in the workplace course for Haworth's Canadian headquarters in Calgary, Bond audited staff interactions and documents and is now spending five hours a week with workers whose time in Canada stretches from as little as six months to more than 20 years. "I see their confidence bloom," Bond says. "They feel valued, since the company is providing this opportunity."

Bond's students learn social skills that could save their lives. "In a lot of cultures, workers don't want to insult the boss by asking for clarification, so they'll nod yes-yes when they really don't understand—and end up in a lot of trouble," she says.

Lakeside Packers in Brooks has hired newcomers for generations, and thus may offer a preview of our future workforce. Recruiting Manager Doug Schwartz estimates 60 per cent of the Lakeside team was born beyond Canada's shores. The company routinely buddies newcomers with seasoned workers who speak the same language, and is building cultural awareness into employee orientation both on-site and through the local adult learning centre. Schwartz believes these practices have helped Lakeside to win its parent company's safety award in three of the past five years. "Our team has developed an amazing degree of tolerance and acceptance of peoples from around the world," Schwartz says.

The Calgary Catholic Immigration Society offers upgrading for engineers, electricians, millwrights, floor coverers and rig handlers (see sidebar). Like the Edmonton Mennonite Centre for Newcomers, it helps recruit staff for such employers as Safeway, Cargill and Maple Leaf Foods. In all cases, the agency seeks to place newcomers with employers and supervisors who are culturally and language sensitive. Companies that exhibit a welcoming attitude.

"I think that's the attitude we need to embrace right now," says Chief Structural Engineer Robb McLeod of Krupp Canada, who recently hired three CCIS graduates and is in the market for more. "We talk about labour shortage and lack of trained people, but the people are here already. They've made a huge leap to come. Let's recognize that courage, and let's make the effort to bring them into our society. Let's give them a chance."

Cheryl Mahaffy is an Edmonton writer whose work appears in several anthologies, including the 2006 release Big Enough Dreams.

ONE IMMIGRANT WORKER'S EXPERIENCE

Among the graduates of the Calgary Catholic Immigration Society's programs is Alok Sahai, a skilled mechanical engineer who left India's largest oil company about two years ago to seek his fortune in Canada. Given the fact that ExxonMobil and Shell were hiring people like him for work in India, he anticipated no problem finding a job, particularly in oil-booming Calgary. Yet, after months of networking he had zero offers.



Earning a coveted spot in the CCIS Engineering & Technology Upgrading Program proved Sahai's ticket to improved fortune. His cohort of 15 bonded into a strong support network as they learned what it takes to be an engineer in Canada. Most importantly, Sahai readily says, he learned to be friendly and open. "Here, it is a requirement. You should have very, very good working relationships with all your colleagues. In India, it is not a compulsion."

After three months with CCIS, Sahai had his pick of four offers. Now happily ensconced at AMEC, a technical services company that is active in Alberta's oil sands, he still marvels at how much program leaders such as Lynn Merrithew taught him about the Canadian way of working. "In India, you can have very few friends in the office, and if you are doing exceedingly well in your company, you can be bossy and get away with things. But here in Canada, humility is the mantra for professional success. To do well, you need to be a team player."

RESOURCES

WEB LINKS

www.emcn.ab.ca/Career_Services/workshops/preemployment_workshops/workplace_culture
Edmonton Mennonite Centre for Newcomers

www.aaisa.ca
Alberta Association of Immigrant Serving Agencies

www.psych.ucalgary.ca/students/grad/diversity/alberta.html
University of Calgary [diversity links]

www.bowenworks.ca/Documents/Media_Fact_Sheet.pdf
Immigrant Works Fact Sheet

PROVINCIAL GOVERNMENT RESOURCES FOR IMMIGRANT WORKERS AND THEIR EMPLOYERS

ALIS (Alberta Learning Information Service)
e-CareerShop www.alis.gov.ab.ca/careershop

View or download PDFs of these and other publications
or order print copies.

- **Welcome to Alberta:** Information for Immigrants
<http://alis.gov.ab.ca/welcometoalberta/home.asp>.
- **Working in Alberta:** A guide for internationally trained
and educated immigrants. Topics include recognition
of international qualifications, registration and
certification, occupational information, career
management and job search.
- **A Guide to Rights and Responsibilities in Alberta
Workplaces.** General information about the rules for
both workers and employers, including employment
standards, workplace health and safety and
human rights.
- **Diversity:** A strategy to meet your need for skilled
workers. Resource for employers that offers a
business case for hiring immigrants, visible
minorities, Aboriginal people, persons with disabilities,
older workers and youth.

Career Information Hotline 1-800-661-3753

Ask about bridging-to-work programs
for recent immigrants.

Alberta Human Rights and Citizenship Commission
www.albertahumanrights.ab.ca

The Commission aims to prevent or resolve
discrimination related to employment and other areas.

International Qualifications Assessment Services
www.learning.gov.ab.ca/iqas/iqas.asp

**Alberta Economic Development Business
Immigration Programs**
www.alberta-canada.com./immigration/index.cfm

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in Edmonton and area) or visit
www.whs.gov.ab.ca/whs-contact.



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Alberta Government Library - Labour Building Site

To review the large selection of occupational
health and safety information materials
available through the Alberta government, go
to www.hre.gov.ab.ca/library.

To borrow materials, either contact your local
library and make your requests through the
inter-library loan system or visit the Alberta
Government Library:

3rd floor, 10808-99 Avenue
Edmonton, AB T5K 0G5

Library phone (780) 427-8533

Audio-Visual Services phone (780) 427-4671

To reach either of the above numbers toll-free
in Alberta, dial 310-0000 followed by the area
code and phone number.

Library fax (780) 422-0084

Workplace Health & Safety is an Alberta
Employment, Immigration and Industry
program that falls under the jurisdiction of
Minister Iris Evans.

MANAGING FATIGUE

by Bill Corbett

In Alberta's overheated, understaffed economy, it's easy to work longer and odder hours. Despite the financial rewards this often brings, there's eventually a price to be paid, and it's called fatigue.

Fatigue is hard to accurately measure, and it's often overlooked in a business environment that values hard work and demands that pressing jobs get done. But it can be a serious risk to safety and performance, often posing the same hazard as impairment factors not tolerated in the workplace—alcohol or drugs.

Research findings

"When you tell companies that someone who's been working for 17 hours has the same level of performance as someone with a .05 blood alcohol level (.08 is legally drunk), they don't want to hear it," says Dr. Wayne Rhodes, a fatigue management consultant with Toronto-based Rhodes & Associates Inc. "We also know from

Perhaps it's no surprise the Exxon Valdez crash and the Chernobyl and Three Mile Island nuclear plant incidents all occurred during the night shift.

research that people are not really good judges of how fatigued they are and how it affects their performance. They always underestimate their level of fatigue."

The Swedish-based National Institute for Working Life estimates that sleep-deprived workers cost business \$350 billion (US) a year worldwide. Studies also show that business pursuits involving shift work have twice as many motor vehicle incidents as those on fixed daytime schedules. In 1998 some 31 per cent of heavy truck incidents were attributed to fatigue. Perhaps it's no surprise the Exxon Valdez crash and the Chernobyl and Three Mile Island nuclear plant incidents all occurred during the night shift.

Causes of fatigue

Fatigue, which can generally be described as a state of being tired, can be caused or exacerbated by long hours of work (physical and/or mental), time of day, type of work, inadequate rest and exercise, excessive stress, poor nutrition and improper temperature, lighting, ventilation or seating.

Fatigued workers tend to be less alert and to respond more slowly than usual. Their concentration, judgment, memory, decision-making ability and motivation are poorer, and they tend to take greater risks. In other words, their performance can be adversely affected and their safety jeopardized. Poor performance is particularly evident with repetitive or complex tasks that take more than 30 minutes to complete.

The biggest contributor to fatigue is insufficient sleep. On average, workers need 7.5 to 8.5 hours of uninterrupted sleep per day. A night or two of shortened sleep may not affect performance, but sleep debt quickly adds up. Losing as little as two hours of sleep a night can soon affect alertness and performance. Indeed, a landmark 1999 study by Australian researchers suggested that 20 hours of sustained wakefulness produced a performance equivalent to having a .10 blood alcohol level.

Quality of sleep is as important as quantity. Caffeine, alcohol, heavy meals before bed, noise, light, room temperature and an uncomfortable bed can all adversely affect sleep and interrupt important sleep cycles.

All this is further complicated by shift work. Studies show night workers typically get an hour less sleep per day than their daytime counterparts. The worst night of a shift is generally the first, with workers often awake for a 24-hour period.

"Brain wave activity shows that sleep during the day is never is as good as at night," says Rhodes. "It takes about a month to fully switch to nocturnal operation, so most workers never get properly adjusted to the night shift."

Shift workers tend to not sleep or function as well as daytime workers because of the body's circadian rhythms, which govern cycles of such things as sleep and alertness. Mess with those natural rhythms, and it's hard to perform normally. As a result, time of day can be as important as how much sleep a worker gets. A disproportionate number of serious workplace and driving incidents, for example, happen between 2 a.m. and 6 a.m., a time of deep sleep for most people.

"There's a noticeable lowering of body temperature between 3 a.m. and 6 a.m. You're not as quick to make decisions and your alertness levels drop," says Jill Gillis, a trainer for the popular Shifting to Wellness program at Keyano College in booming Fort McMurray, where many people are working long and irregular hours.

What employers can do

Employers can develop, and adhere to, a corporate fatigue management plan, covering such things as risk assessment (computer models now exist for assessing fatigue risk), shift scheduling and work environment. For example, scheduling shorter shifts and shift rotations that follow the sun (morning, followed by afternoon, followed by evening) can reduce fatigue.

"Employers also need to ensure workers get sufficient rest time between shifts," says Ray Cislo, a safety engineering specialist with Alberta Workplace Health & Safety. "If an eight-hour break includes three hours of transit time, sleep time is effectively reduced to only five hours." Employees who work compressed weeks—squeezing up to 44 hours of work into four days—especially need enough time between long work days to take care of family and other non-work needs.

One place that takes fatigue management seriously is Edmonton-based software company Intuit Canada. Its 350 employees—most of whom spend many focused hours at computers—have free, in-house access to three nap rooms, professional massages, yoga and aerobics classes, a gymnasium and weight room, an employee lounge and nearby walking trails. Employee comfort was an integral part of designing the company headquarters, which features natural lighting, windows that open, ergonomic chairs and large, flat-screen computer monitors.

"We try to provide a well-rounded, healthy work environment," says Cheryll Watson, Intuit Canada's senior manager, Employee and Community Engagement Services. "One of the most important things we do is encourage employees to get away from their desks and take a break."

What employees can do

Employees should also take responsibility for reducing their fatigue. This includes getting enough sleep and exercise and eating well—avoiding heavy meals at lunch and before bed, and moderating intake of caffeine and sugar-laden foods and drinks, which often produce energy crashes.

"It's important that workers be aware of their body's rhythms and how their energy levels are affected by different things," says Gillis. "They should pay attention to things like what makes them sleepy (and at what time of day), what they eat and drink, and how much exercise they're getting."

For more information

The following Alberta Workplace Health & Safety bulletins deal with fatigue in the workplace:

Exhausted or Drunk – Behind the Wheel, It Makes No Difference

www.hre.gov.ab.ca/documents/WHS/WHS-PUB_erg027.pdf

Fatigue and Safety at the Workplace

www.hre.gov.ab.ca/documents/WHS/WHS-PUB_erg015-1.pdf

Fatigue, Extended Work Hours and Safety in the Workplace

www.hre.gov.ab.ca/documents/WHS/WHS-PUB_erg015.pdf

Focus on Human Performance: Sleep Inertia

www.hre.gov.ab.ca/documents/WHS/WHS-PUB_erg034.pdf

*Bill Corbett, www.billcorbett.ca, wrote the highly successful book *Day Trips From Calgary*, first published in 1995 and since revised and expanded three times—most recently in 2006.*

HOURS OF WORK AND REST PERIODS IN ALBERTA

Alberta's Employment Standards Code dictates that an employee's workday must generally fall within a 12-hour period, unless an unforeseeable emergency arises. In general, employers must provide one day of rest per week. Alternatively, after 24 consecutive days of work, employees must be provided with at least four consecutive days of rest.

Employees in some sectors—such as farming, sales and professional work—are exempt from hours of work and days of rest. As well, permits can be issued that authorize extended hours of work. For more information, see www.hre.gov.ab.ca/cps/rde/xchg/hre/hs.xsl/1031.html.

RESOURCES

WEB LINKS

www.hre.gov.ab.ca/whs/learning/Shiftwork/index.html
Shift Work and Fatigue eLearning program (Work Safe Alberta)

www.safety-council.org/info/OSH/fatigue.htm
Canada Safety Council - Fatigue

www.ccohs.ca/oshanswers/psychosocial/fatigue.html
CCOHS (What Is Fatigue?)

http://news.thomasnet.com/IMT/archives/2006/08/sleep_deprivation_workplace_injuries.html?t=archive
Thomasnet (Sleep Deprivation and Workplace Riskzzzz)

IN THE ALBERTA GOVERNMENT LIBRARY – LABOUR BUILDING

For contact information, see page 12.

Mastering the Shiftwork Lifestyle (Video)

A program developed specifically to assist shift workers and their families in making the biological and social adjustments required by their work schedule. Only recently has research shown the significant impact these schedules have on the human body. (VC 0287)

PARTNERSHIPS NEWS

NEW PARTNERS IN HEALTH AND SAFETY

Welcome to:

- BJ Services Company, Calgary
- NATCO Canada, Calgary
- City of Edmonton

Partners are recognized as leaders in their industry. Through a Memorandum of Understanding, Partners commit to taking a proactive role in promoting workplace health and safety throughout Alberta. The MOU outlines the Partner's role in promoting the Partnerships program and assisting others with their health and safety systems and needs.

CHANGES IN WORKPLACE PARTNERSHIPS OFFICES

One Calgary vacancy has been filled and two positions added in Edmonton. These three staff members are all working exclusively in the area of quality assurance. Welcome to Nancy Muir (Calgary), and Lena Cimmarusti and Arlene Ledi-Thom (Edmonton).

THREADS OF LIFE

NEW ASSOCIATION FOR WORKPLACE TRAGEDY FAMILY SUPPORT

Joe Childs, Director of Workplace Partnerships, has been appointed to a one-year term on the Threads of Life national board. Threads of Life is a not-for-profit organization launched in April 2003 by several participants in the unveiling of the Canadian LifeQuilt (www.youngworkerquilt.ca), a memorial to young men and women who have been killed or injured on the job. Threads of Life is dedicated to helping families affected by workplace fatalities, life-altering injuries and occupational disease. The association provides a variety of services, including a speakers bureau, information about grassroots action and printed information.

Plans are to develop Threads of Life resources and activities that have an Alberta focus. Watch this Partnerships page for ongoing developments.

For more information, visit www.threadsoflife.ca and/or contact Joe Childs at joe.childs@gov.ab.ca.

STRATEGIC PLANNING

A Strategic Planning working group that includes representation from Partners, Certifying Partners, Workers' Compensation Board-Alberta and Alberta Employment, Immigration and Industry is developing a new three-year strategic plan for Partnerships in Health and Safety.

Approximately 75 Partners, Certifying Partners, Certificate of Recognition holders and other stakeholders met in Edmonton in October to discuss and draft strategies. A final draft of the strategic plan will be forwarded to the Minister of Human Resources and Employment for approval.

For more information on the strategic planning process, contact Rob Feagan at rob.feagan@gov.ab.ca.

CERTIFICATE OF RECOGNITION RECIPROCITY AMONG WESTERN PROVINCES

Officials of the Certificate of Recognition programs in Alberta and British Columbia are close to signing a memorandum of understanding between the two provinces. This MOU will recognize the equivalencies of the Alberta and B.C. programs for employers holding a COR and bidding on work in either province. This move will be of considerable importance to industries such as construction, petroleum and transportation, where employers regularly do work outside their home province.

The MOU will allow an employer holding a COR in one province to bid on contracted work in the neighbouring province when the contracting employer requires a COR. Once established in the neighbouring province, the employer can obtain a COR by meeting the COR requirements of the local jurisdiction.

Discussions are also underway with Saskatchewan officials regarding participation in a reciprocity agreement once that province's COR program has been established.



Partnerships in Health and Safety is a non-regulatory, province-wide injury prevention program sponsored cooperatively by government, labour and industry. The program offers:

- tools to implement a health and safety management system
- guidance in applying for a Certificate of Recognition (COR)
- potential for premium refunds from the Workers' Compensation Board-Alberta

For more information, call the Partnerships Hotline at 1-866-415-8690 or visit www.whs.gov.ab.ca/whs-partnerships.



THE ELEPHANT IN THE ROOM

by Bob Christie

Fatigue. Almost everybody knows that tired workers are not only less effective, but more likely to cause incidents that can injure or kill. And that shift workers are at risk, particularly those who work long shifts and change their work time with some regularity.

Keyano College and other institutions have courses on ways to minimize the impact of shift work by managing the regular change between work and leisure time. Even those who are not working shifts can benefit from these courses, and other workers can benefit from sleep medication, depending on the causes of the fatigue.

Most Alberta health authorities have some kind of sleep lab that can diagnose sleep apnea* and other sleep disorders. However, these labs are expensive (costs are shared by the health authority and the patient) and are often backlogged.

Fatigue has different causes, and a variety of possible treatments. The problem is to identify what solution is recommended. And that is why fatigue is the elephant in the room. Everybody knows it's there: how could you miss it? But since nobody has a comprehensive solution, it's almost never talked about.

That situation may be about to come to an end. A Vancouver company called Shiftwork Solutions has developed a "sleep bracelet" (see photo). Instead of participating in a sleep study, you wear the watch-like sleep bracelet for an entire week, night and day—even in the shower. This sleep bracelet is expected to be on the market early in 2007 and will retail for about \$100 US. After a week, you connect the bracelet to the USB port on any computer, access the company's website and upload the entire data stream.

For about another \$100, Shiftwork Solutions will analyze your sleep patterns. They will also predict (based on your work schedule) when you will become dangerously fatigued.

The company does not promise the minute-by-minute accuracy of a full-blown sleep study, but in some ways it is superior since it gives the evaluator a full week's pattern. Shiftwork Solutions does not try to do a full diagnosis of dangerous sleep issues, and often strongly recommends that the individual seek the counsel of a sleep specialist and possibly take part in a more intensive sleep study.

The other side of this technology is the ability to look carefully at an individual's work schedule from the perspective of fatigue and heightened risk. If a workforce regularly becomes dangerously fatigued in the last two hours of a 12-hour shift, for example, there is strong evidence to support working out a change in the schedule.

A hospital has tried Shiftwork Solutions' prototype machines. They knew fatigue was a problem with their new longer shifts and wanted to schedule nap time for all long-shifting staff. They used the sleep bracelet technology to determine the best time for each staff member to take a nap,

and also confirmed that the naps dramatically reduced individuals' periods of fatigue.

Read more at www.shiftwork.ca. Sounds like a promising start on a vexing problem. To me, anyway.



Photo courtesy of Sleep Performance Inc.

*Sleep apnea is a phenomena where the individual, deeply in sleep, forgets to breathe. Their blood oxygen level drops close to dangerous levels and this wakes the sleeper, often many times every hour. Close to 25 per cent of adults may have sleep apnea to some degree. The main treatment is a Bi-Pap machine that drives pressurized air into the sleeper's airway.

Bob Christie is a partner at Christie Communications Ltd., a multimedia development company in Edmonton. Bob supplies most of the web link resources for the articles in this magazine.

WHAT IMPROVEMENTS HAVE YOU MADE AT YOUR WORKPLACE?

If you've found a solution worth sharing, please send it to ray.cislo@gov.ab.ca.

PORTABLE LOAD LIFTER

The Problem

Many jobs require workers to lift and carry heavy or awkward loads. Sometimes these loads are located above shoulder height on shelving units.

The Solution

Use a hand truck to get loads down from a shelving unit and deliver them.

Benefits

The potential for back and shoulder injuries is eliminated.



ADJUSTABLE TILTING WORK STAND

The Problem

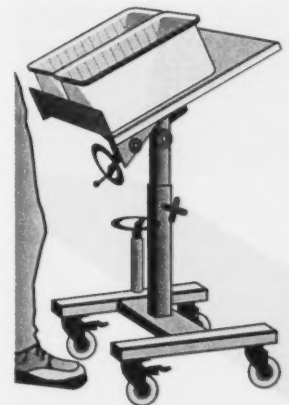
During sorting or assembly activities, product receiving bins are at an incorrect height or position. Workers are forced to repetitively overreach, which can cause injuries such as strains.

The Solution

An adjustable tilting work stand allows the worker to adjust its height and position.

Benefits

Fitting the workstation to the worker is the key. Eliminating unnecessary repetitive movements not only reduces the likelihood of injury but also may improve productivity.



EXERCISE BALLS INSTEAD OF CHAIRS? MAYBE NOT.

by Ray Cislo

Fitness, stability or exercise balls are becoming an increasingly popular alternative to traditional office chairs. Followers of this trend believe that sitting on an exercise ball builds strength in the body's core (abdominal and back muscles), thereby preventing or reducing lower back pain and improving posture and balance. The theory is that dynamic sitting on a slightly unstable surface causes abdominal and lower back muscles to contract and relax. The instability is also supposed to encourage the user to move around and shift position, thus preventing the discomfort that results from staying in the same position for extended periods.

Since researchers have found little evidence to support these claims, exercise balls are not recommended as a substitute for a properly selected and adjusted chair. Recent studies have also found that exercise balls are generally less comfortable to sit on for any significant length of time because the contact area includes tissues that are not normally compressed, for example, the hamstring muscles at the back of the legs and a larger portion of the buttocks.

Using an exercise ball as standard seating presents several other problems:

- The initial upright posture is soon lost and the person often slouches because there is no full seat or back support.
- The seated person cannot swivel or move around the workstation.
- The seating height and back position cannot be adjusted.
- Exercise balls don't appropriately support the lower back and thighs.

Manufacturers have created accessories such as wheeled bases with integral back rests and chairs that replace the seat pan with an exercise ball. However, these products appear to be counterproductive: stabilizing the ball is likely to eliminate most of the claimed exercise advantages.

Exercise balls look like a fun and colourful addition to the office. But, unless a health professional recommends



an exercise ball to treat a specific condition or as part of a treatment or rehabilitation plan, you are well advised to continue using your regular office chair.

Ray Cislo, P.Eng., B.Sc.(H.K.) is a safety engineering/ergonomics specialist at Workplace Health and Safety Policy and Legislation, Alberta Employment, Immigration and Industry.

RESOURCES

WEB LINKS

<http://csu.edu.au/division/healsafe/textdocs/PDFs/HA25.pdf>
WorkSafe Victoria, Australia

PERIODICALS

McGill, S.M. et al. Sitting on a chair or an exercise ball: Various perspectives to guide decision making. *Clinical Biomechanics* 21 (2006): pp 353-360.

Gregory D.E. et al. Stability ball versus office chair: Comparison of muscle activation and lumbar spine posture during prolonged sitting. *Human Factors* 48 (1) Spring 2006: pp 142-153.

MANITOBA RESEARCHER COMBATS THE COLD

by Juliet Kershaw

Dr. Gordon Giesbrecht, a thermophysiological and professor at the University of Manitoba, flings himself into icy water on a regular basis, in various states of dress, and sometimes in vehicles. He's trekked four times across the barren winter landscape of Lake Winnipeg—twice solo. He's been willingly subjected to situations that have caused him to become hypothermic. Not just once or twice, but 38 times! And he's threaded a catheter into his body and injected icy water through his veins to prove a point.

What's more, on several occasions Giesbrecht has done these things with gusto in front of a camera. Always to educate. Always hoping to save a few lives.

Giesbrecht studies "the human response to exercise in extreme environments," particularly in the cold. However, his highly individual and risk-taking approach to research does much more than secure a place in scientific journals. It ensures the public is aware of potentially life-saving survival information. When Giesbrecht skied through the melting ice of Lake Winnipeg for a series of Discovery Channel videos, he provided an eye-popping scenario of how to save yourself if you fall through the ice. The demonstration also nicely publicized some of the results of years of research conducted at the University of Manitoba's Laboratory for Exercise and Environmental Medicine (part of the Health, Leisure and Human Performance Research Institute Giesbrecht directs).

Luckily, you don't have to follow Giesbrecht's example to prepare yourself to survive potentially fatal situations in cold environments. You can learn simply by watching the video, he says. He knows of at least one person who found himself suddenly falling through some ice and remembered the critical information he needed, from video images that were indelibly imprinted on his mind.

For those more frequently exposed to such risks, Giesbrecht suggests his just-published book, *Hypothermia, Frostbite and Other Cold Injuries*. Giesbrecht also launched a lecture series at the University of Manitoba last fall with a presentation entitled "Keep Cool . . .

But Don't Freeze!" which provides clear guidelines for surviving life-threatening situations.

Dr. Giesbrecht, christened Professor Popsicle by *Outside Magazine*, is one of a handful of world experts in extreme cold and how it affects people's functioning. A physiologist by training—though one of his first jobs was framing houses in winter in Edmonton—it's fair to say that Giesbrecht is obsessed with the cold.

Dr. Giesbrecht, christened Professor Popsicle by *Outside Magazine*, is one of a handful of world experts in extreme cold and how it affects people's functioning.

Apparently he's not the only one. Giesbrecht has frozen hundreds of more-than-willing subjects for his experiments. They can't be lining up just for the \$64 honorarium. Giesbrecht believes his subjects thrive on testing their ability to respond in extremely physically challenging situations—situations most of us go to great lengths to avoid.

The reality for rig workers, construction workers, maintenance workers, agricultural workers and many others is that occasions arise when cold-exposure and hypothermia become life-threatening. Therefore, training for working in the cold is especially important. Workers who take the initiative to educate themselves and ensure they always work with a buddy in extreme environments will be better equipped to protect themselves.

While most of Giesbrecht's experiments test the effects of cold on the physiology of people immersed in extremely cold water, his results are also pertinent to land-based situations. People can underestimate the threat of hypothermia that dry cold presents. If you fall into cold water, it's clear you must get out soon if you want to survive. If you're exposed to the cold on land, your body

AVOIDING HYPOTHERMIA

Dress appropriately. Carefully consider your working environment and the level of physical activity the work requires. Avoid overdressing, which can cause sweating, evaporation and then loss of heat. If the work is particularly physically demanding, start out dressed lightly and put up with the cold until your body warms up.

Never work alone. It's difficult to monitor physiological changes in your own body when you're working in extreme cold. You might not notice the gradual changes that signal your body is cooling to dangerous levels. Always work with a partner and monitor each other.

Watch for symptoms of cold stress. Any of the symptoms described by Giesbrecht—fumbling, stumbling, grumbling or mumbling (in that order)—are warnings to take steps to warm up your core body temperature.

The bottom line is that you get cold very gradually. If you don't notice and address the situation, you will approach a hypothermic state.



cools more slowly, and you may not be aware of the danger.

People dress too lightly or overdress, they sit in snow, or they don't get out of the cold soon enough. All of these things cause a body to lose heat and eventually, if enough heat is lost, cause hypothermia. "You can still be functional," Giesbrecht notes, "and if you didn't do anything out of the ordinary, you might be able to keep a small task going and not realize you're becoming hypothermic until you fall over."

Giesbrecht has come up with a short and snappy list of symptoms to indicate the onset of hypothermia: fumble, stumble, grumble and mumble. If you begin to fumble, you're on the way to becoming dangerously cold; stumbling confirms the diagnosis. At that point, you must act, Giesbrecht says. "All the individual can do to self-monitor is to catch the first two; if you don't notice the physical stuff, then you're moving into insidious onset."

Giesbrecht has just completed a training video produced by the Manitoba government for people who work on ice roads. The key, he says, is to never work alone. If you go through the ice, your partner can pull you out. If you start showing signs of hypothermia, an observant sidekick will notice.

"You need to know to watch for any changes in how your partner acts: whether they seem to be working slower than usual or become irritable or incoherent. If you notice anything abnormal, suggest a coffee break to persuade your partner to get out of the elements." Though where men are concerned, Giesbrecht says, "you might have to use some psychology if they resist."

Alberta's big booming industries—such as oil, gas and construction—require year-round exposure to the elements. Working on scaffolding, snowmobiling to remote sites or traveling on ice roads can pose threats ranging from frostbite to fatal hypothermia. Fortunately for the workers of this province, Dr. Giesbrecht has clearly communicated the survival techniques we need to work in the cold, via some of the most shocking footage seen on screen in years!

For more information

Meet Dr. Giesbrecht and watch the Discovery Channel videos at: www.umanitoba.ca/faculties/phsysd/research/people/giesbrecht.shtml.

The following Alberta Workplace Health & Safety bulletins deal with working in the cold:

- www.hre.gov.ab.ca/documents/whs/whs-pub_mg021.pdf
Working in the Cold
- www.hre.gov.ab.ca/documents/whs/whs-pub_erg035.pdf
Focus on Human Performance, Part 2: Working in the Cold

Juliet Kershaw is a writer and editor based in Western Canada, and a former editor of the OH&S magazine.



Dr. Gordon Giesbrecht testing a theory. / Photo courtesy of University of Manitoba

OUT OF THE DRINK

Going through the ice

Dr. Giesbrecht has debunked the myth that people who fall into icy water have only minutes before becoming hypothermic and dying. "Remember the one-ten-one principle," he says. "You have one minute to get your breathing under control, then you have ten minutes of meaningful movement. After that, you'll start getting weaker, so stop thrashing around and realize you have one hour before you become significantly hypothermic and unconscious." You may be able to use that time to get out of the water.

Escaping a submerged vehicle

In Canada, 7 per cent of drownings are the result of vehicle submersion. Giesbrecht emphasizes that if your enclosed vehicle goes into the water, keeping your cool is essential. Forget about trying to use your cell phone: that's a death sentence. Instead, use the two or three minutes you have before the vehicle fully submerges to open a window and get out. Even electric windows work under water for a few minutes after submersion.

RESOURCES

WEB LINKS

http://outside.away.com/outside/features/200301/200301_popsicle1.html

"Meet Professor Popsicle"

www.ccohs.ca/oshanswers/phys_agents/cold_working.html
CCOHS: Working in the Cold

www.ccohs.ca/oshanswers/phys_agents/hot_cold.html
CCOHS: Extreme Hot or Cold Temperature Conditions

IN THE ALBERTA GOVERNMENT LIBRARY – LABOUR BUILDING

For contact information, see page 12.

Winter Safety (Video)

You can avoid losing your fingers and toes to frostbite or risking your life to hypothermia, and be prepared to help victims of these conditions. This video covers the causes and symptoms of hypothermia and frostbite, and how to prevent and treat them. [VC 0273]

WORKPLACE FATALITIES

May 2006 – August 2006

The following information about deaths caused by work-related incidents or exposure is published to remind readers of the importance of workplace health and safety. In many cases the investigation into these fatalities is continuing. Final investigation reports are filed at the Alberta Government Library – Labour Building site and can be reviewed there at www.whs.gov.ab.ca/whs-fatalities.

To protect personal privacy, the fatality descriptions do not include the names of the deceased.

Most work-related incident fatalities that fall under provincial jurisdiction are investigated by Workplace Health & Safety. In general, highway traffic, farm, disease or heart attack fatalities are not investigated.

The following fatalities have been or are being investigated.

A 64-year-old painter died of head injuries after falling a distance of one metre off a step ladder onto a concrete floor covered with a carpet and drop sheet.

A 58-year-old journeyman sheet metal mechanic died after falling through a roof access hatch opening onto a concrete floor approximately 3.5 metres below.

A 47-year-old roofer died after falling approximately 7.5 metres from the roof of a building under construction onto a concrete floor. The worker was walking on the roof and fell through an opening that had not been covered.

A 22-year-old sheet metal installer died after falling 18 metres to the ground from the roof of a newly constructed fabrication shop.

A 58-year-old owner/operator of a trucking service died after being pinned between a flatbed trailer and the cab of a truck. The worker was checking the tie-down straps on the trailer's load when another worker moved the flatbed trailer to hitch it to the cab.

A 57-year-old heavy equipment operator died after being pinned between the rear of a tractor and a downed tree that was being attached to the machine for skidding. The worker was killed when an operator put the tractor in reverse.

A 56-year-old swamper died while handling a pipe, 24.3 metres long by 76 centimetres in diameter, that was being loaded onto a pipe loading rack. The worker was pinned between two pipes.

A 41-year-old labourer was killed while cleaning wood debris and sawdust from under an oriented strand board stacker. The stacker went through an automatic cycle and came down on the worker.

A 45-year-old consultant working on a lease site was fatally injured when struck by part of a well surface casing that blew apart. The casing was being pressure tested using nitrogen.

A 26-year-old labourer/apprentice pipefitter and a 27-year-old welder were securing the metal doors of a shipping container by welding them shut. When the welding began, the container exploded, and both workers were fatally injured by flying debris.

A 44-year-old neon processor technician was electrocuted while using high voltage electrical current to prepare glass tubes to become neon lights. The worker came too close to two unused electrical lead wires lying loose on a workbench.

A 64-year-old scaffolder died in hospital from heat stress four days after being trapped for several hours inside a boiler that he and another worker were de-slagging. The workers were on a swingstage scaffold when one of the two swingstage motors failed. As a result, the scaffold could not be lowered for their rescue.



A NEW SENTENCING ERA

by Tamara Trull

Occupational health and safety prosecutions have entered into a new sentencing era.

H & H Stucco and Siding Ltd. recently received the highest penalty ever imposed in Alberta for a fatal incident (\$345,000, comprised of a \$300,000 fine and a \$45,000 victim fine surcharge). This sentence reflects the Alberta legislature's increase of the maximum penalty under the Occupational Health and Safety Act from \$150,000 to \$500,000 in December 2002.

H & H Stucco was a small family-owned business managed and directed by a husband and wife. The deceased worker, the couple's nephew, was on a balcony passing materials to a co-worker at a condominium construction site on March 27, 2003, when he fell about 10 metres onto the concrete below. There was no guardrail on the balcony, and the worker was not wearing any form of fall protection. The corporation pleaded guilty to one count of failing to ensure the health and safety of a worker.

Upon imposing the sentence, the Honourable Judge Johnson indicated that the penalty might have been higher had the corporation not entered an early guilty plea and expressed significant remorse. The court indicated, "This was not a case, at least not presented to me as a case, involving short-cuts taken to improve profitability, or a case where warnings went unheeded by the employer or where there was deliberate or reckless action taken which resulted in the risk and the harm. These are potentially aggravating factors and none of these were evident on the evidence that was placed before me."

The court clearly stated that "the principle of general deterrence, the importance of protecting workers and the importance of sending a message that failure to do so carries a stiff penalty" were paramount in sentencing this corporation.

To suggest topics for future columns, please send a message to Tamara.Trull@gov.ab.ca or Brian.Caruk@gov.ab.ca.

Tamara Trull is a Crown Prosecutor in the Occupational Health and Safety Prosecution Unit of Alberta Justice.

THE LAST RESORT

Reporting on Recent Convictions
Under the Occupational Health and Safety Act

Employer

Thibeault Masonary Ltd., Calgary

Incident

On March 5, 2004, a worker in Calgary suffered multiple serious injuries when the scaffold plank the worker was standing on broke, and he fell over six metres to the ground.

Violation

On July 28, 2006, Thibeault Masonry Ltd. pleaded guilty of failing to ensure the health and safety of a worker [Section 2(1)(a)(i) of the Occupational Health and Safety Act]. Two other charges under the Alberta Regulation [sections 112(1)(c) and 112(1)(d)] were dropped, as well as two charges under the General Safety Regulation [sections 144(1)(a) and 144(1)(b)].

Fine

Thibeault Masonry Ltd received the highest penalty ever imposed in Alberta for a non-fatal violation of the Occupational Health and Safety Act. The company was sentenced to pay a penalty of \$125,750: a fine of \$5,000 plus a \$750 victim fine surcharge, and a payment of \$120,000 under Section 41.1 of the Occupational Health and Safety Act to the Alberta Construction Safety Association for its fall protection program.

For more information, go to www.whs.gov.ab.ca/whs-prosecutions

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Alberta

